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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/658,862	09/09/2003	Stephen R. Payne	TRA-126	5187

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EXAMINER	
CHEN, ALAN S	
ART UNIT	**PAPER NUMBER**
2182	

DATE MAILED: 01/13/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/658,862	PAYNE ET AL.	
	Examiner	Art Unit	
	Alan S Chen	2182	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☐ Responsive to communication(s) filed on _____.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) 1-42 is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) 1-42 is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on 09 September 2003 is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 101

1. 35 U.S.C. 101 reads as follows:

> Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

2. Claims 29-42 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter. Claims 29-42 are directed to a USB device identifier which is considered nonfunctional descriptive material, e.g., simply data. See MPEP section 2106.

3. To expedite a complete examination of the instant application, the claims rejected under 35 U.S.C. 101 (nonstatutory) above are further rejected as set forth below in anticipation of applicant amending these claims to place them within the four statutory categories of invention

Claim Rejections - 35 USC § 102

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

5. Claims 29-42 are rejected under 35 U.S.C. 102(e) as being anticipated by No. 6,697,073 to Kadota.

6. As per claim 29, Kadota discloses a standard USB device identifier (Fig. 3C under port name) for model line of USB peripheral devices (Fig. 1, elements 11,13 and 15), comprising: a string of text data for identifying each peripheral device of said model line of peripheral devices

when connected to a USB port of a host device (Column 9, lines 25-35), said string of text data being identical for each peripheral device in said model line (Fig. 2, Display Screen shows same printers, except for different numbering to provide uniqueness).

7. As per claims 30 and 32, Kadota discloses claim 29, wherein said USB port comprises a virtual communication/printer port (Fig. 1, element 3, USB on host represents the host port attachment for all printers connected to computer).

8. As per claim 31, Kadota discloses claim 29, wherein said peripheral device comprises a printer (Fig. 1, elements 11,13 and 15).

9. As per claim 33, Kadota discloses claim 31, wherein said USB port comprises a printer name associated with said printer (Fig. 2, under Display Screen).

10. As per claim 34, Kadota discloses claim 29, wherein said standard USB device identifier identifies each peripheral device in the model line to the host device as identical devices (Fig. 1, under Display Screen and Column 9, lines 25-35, devices of the same model name will get the same name designation).

11. As per claim 35, Kadota discloses claim 29, wherein said standard USB device identifier is configurable (Fig. 5, element S70, it is prepared from the model name and serial number extracted from device).

12. As per claims 36, Kadota discloses claim 35, wherein said standard USB device identifier for said peripheral device is configurable (Fig. 5, element S70).

13. As per claims 37, Kadota discloses claim 35, wherein said standard USB device identifier is configurable to control the communications port of the host device that said peripheral device is associated with (Fig. 5, S70 and Fig. 6).

14. As per claims 38-41, Kadota discloses claim 35, further disclosing that the USB device identifier is enabled by a configuration tool (Column 9, lines 25-35, hardware and software enabled, e.g, used CPU and OS, both separate from the printer).

15. As per claim 42, Kadota discloses claim 29, wherein said standard USB device identifier comprises a model designation for said model line (Fig. 5, element S50, model name is incorporated as part of the identifier).

Claim Rejections - 35 USC § 103

16. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

17. Claims 1-28 are rejected under 35 USC 103(a) as being unpatentable over No. 6,654,136 to Shimada in view of No. 6,697,073 to Kadota.

18. As per claims 1 and 15, Shimada discloses a USB peripheral device and method (Fig. 1-2) belonging to a model line of identical peripheral devices (Fig. 5, element 100) to be exchanged at a USB port of a host device without reinstallation of a new driver or reassignment (per claim 15, printers are identical and therefore the operating system will use the same driver), said peripheral device comprising: a USB interface enabling connection (Fig. 8, element 51 and 52) of the peripheral device to a USB port of a host device (Fig. 4, element 9); and memory for storing a USB device identifier (intrinsic with the USB specification to have each device identified with an ID, also admitted by applicant as prior art, e.g., Fig. 1-3 of application).

Shimada does not disclose expressly a USB device identifier comprising a standard device identifier for all the peripheral devices of the model line.

Kadota discloses USB peripheral device (Fig. 1, elements 11, 13 and 15) that comprise a memory for storing a USB standard device identifier (Fig. 4, element S300, device ID must be stored in memory). Note that in Fig. 5, it is clear that USB ID contains the model name and serial number. Also shown and stated in Column 9, lines 25-35 as well as Fig. 2, the model name is standard in that it use the model name and therefore all the models in a model line will have the same name (with an additional numeral to distinguish identical devices).

Shimada and Kadota are analogous art because they are from the same field of endeavor in attaching and detaching multiple USB printers from a host.

At the time of the invention it would have been obvious to a person of ordinary skill in the art to optimize the management of multiple printers that may be attached and detached from the host computer.

The suggestion/motivation for doing so would have been to be able to distinguish which printer corresponds to which port name by a string that shows, *inter alia*, the device model name. It is clear that Shimada is attempting to print on multiple printers that are all connected to one physical USB port of the host. In order easily identify the different printers, Kadota teaches a way to produce a better port name for the user to identify the printers by (Fig. 5, element S70).

Therefore, it would have been obvious to combine Shimada with Kadota for the benefit of easily distinguishing, by the user, multiple printers attached to a host.

19. As per claims 2 and 16, Shimada combined with Kadota disclose claims 1 and 15, Shimada further disclosing said USB port comprises a virtual communication port (Fig. 5,

element 10, USB on host represents the host port attachment for all printers connected to computer).

20. As per claims 3 and 17, Shimada combined with Kadota disclose claims 1 and 15, Shimada further discloses said peripheral device comprises a printer (Fig. 5, element 100).

21. As per claims 4 and 18, Shimada combined with Kadota disclose claims 3 and 15, wherein said USB port comprises a virtual printer port (Fig. 5, element 10).

22. As per claims 5 and 19, Shimada combined with Kadota disclose claims 3 and 15, Shimada further discloses said USB port comprises a printer name associated with said printer (Fig. 11, element 76).

23. As per claims 6 and 20, Shimada combined with Kadota disclose claims 1 and 15, wherein Shimada further discloses said standard USB device identifier identifies each peripheral device in the model line to the host device as identical devices (the printer devices in Shimada are all identical, Fig. 5, element 100), thereby preventing device driver reinstallation and communication port reassignment when swapping said peripheral device for a another peripheral device from said model line (device drivers intrinsically do not need to be reinstalled).

24. As per claims 7 and 21, Shimada combined with Kadota disclose claims 7 and 15, Kadota further disclosing said standard USB device identifier is configurable (Fig. 5, element S70, it is prepared from the model name and serial number extracted from device).

25. As per claims 8 and 22, Shimada combined with Kadota discloses claims 7 and 21, where Shimada further discloses said USB device identifier for said peripheral device is configurable (in Shimada, IDs are also stored in reconfigurable memory, Fig. 8, element 48, and therefore is

configurable) to allow two peripheral devices from the model line to be connected to said host device simultaneously (Fig. 5, element 100).

26. As per claims 9 and 23, Shimada combined with Kadota discloses claim 7 and 21, wherein Kadota further discloses said standard USB device identifier is configurable to control the communications port of the host device that said peripheral device is associated with (Fig. 5, elements S70 and S80).

27. As per claims 10-13 and 24-27, Shimada combined with Kadota discloses claims 7 and 21, Shimada further discloses the USB ID being stored in firmware (e.g., flash memory) and therefore in order to update the firmware, it is intrinsic that a firmware upgrade utility is implemented via either hardware (some sort of boot strap configuration) or software (a software download directly to the firmware) both of which requires the user to manipulate the keypad on the computer (e.g., for a software upgrade) or on the printer itself (e.g., a hardware upgrade requiring the reset of the printer to enable the firmware to reprogram itself to assume the new upgrade).

28. As per claims 14 and 28, Shimada combined with Kadota discloses claims 1 and 15, Kadota further discloses wherein said standard USB device identifier comprises a model designation for said model line (Fig. 5, element S50).

Conclusion

29. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

The following patents are cited to further show the state of the art with respect to USB device identification:

U.S. Pat. No. US006745255B2 to Yen et al.

U.S. Pat. No. US006345319B2 to Lin et al.

U.S. Pat. No. US006370591B2 to Kaihlaniemi

European Patent App. No. EP001434130A2

30. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Alan S Chen whose telephone number is 571-272-4143. The examiner can normally be reached on M-F 8:30am - 5:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jeffrey A Gaffin can be reached on (571) 272-4146. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

ASC
12/15/2004

KIM HUYNH
PRIMARY EXAMINER
12/16/04